



## EXPANDER RECEIVES U.S. PATENT FOR FTCRUDE<sup>®</sup> TECHNOLOGY

**CALGARY, AB. (November 16, 2015)** – Expander Energy is pleased to announce that its proprietary FTCrude<sup>®</sup> technology has received an issued patent from the U.S. patent office ([Link to patent abstract](#)).

This follows the issuance of 3 Canadian patents related to the FTCrude<sup>®</sup> Technology Suite.

FTCrude<sup>®</sup> is a bitumen and heavy oil upgrading process and system developed for the synthesis of hydrocarbons, an example of which is synthetic crude oil (SCO), Partial Upgraded Bitumen (PUB) and High Quality Refined Fuels (ULS Diesel). The process advantageously avoids the waste attributed to residuum and/or petcoke formation which has a dramatic positive effect on the increased yield of final product generated, and the significant reduction in CO<sub>2</sub> (GHG) emissions compared to current Bitumen Refining and Upgrading. The process integrates Fischer-Tropsch technology with gasification and hydrogen rich gas syngas generation to convert the “Bottom of the Barrel” to high value synthetic diesel.

“The Expander **FTCrude<sup>®</sup>** patented technology is a major breakthrough in the vital area of bitumen and heavy oil refining and upgrading. The FTCrude<sup>®</sup> process targets the low value “Bottom of the Barrel” which is typically converted to petcoke or high sulfur fuel oil and provides an environmental, sustainable and proven economic solution to issues constraining the effective movement of bitumen and heavy oil to world markets,” said Expander’s CEO James Ross.

Expander has a team of energy industry professionals dedicated to developing and commercializing **Carbon Management and Utilization** solutions for Canada’s energy industry.

### ***About Expander Energy***

**Expander Energy is a leading developer and licensor of processes to convert carbon sources into valuable synthetic fuels. Our engineered fuels are ultra-clean burning and complement existing transportation fuel infrastructure and current engine technologies. Our fuels reduce GHG emissions and are produced from carbon rich materials such as natural gas, biomass,**

**bitumen residuals, petcoke and municipal solid waste. We strive to deliver an alternative, drop in fuel through patented technology to provide economic growth for Alberta and Canada while being environmentally conscious. Expander Energy Inc. is a privately held energy company located in Calgary, Alberta, Canada.**

For further information and licensing opportunities please contact:

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